

Miller, Walker, and Salmon Basin Plan Project Management Team Meeting

Date: Thursday July 3, 2003

Time: 9:00AM – 12:00PM

Location: City of Burien City Manager's Conference Room

Meeting Summary

Attendees

Dan Bath	City of Burien
Bruce Bennett	King County
Steve Bennett	City of Normandy Park
Julie Cairn	King County
Steve Clark	City of Burien
Curt Crawford	King County
Bob Duffner	Port of Seattle
Roger Kuykendall	Gray & Osborne (for the City of Normandy Park) rkuykendall@g-o.com 206-284-0860
Kimberly Lockard	King County Council
Mehrdad Moini	WSDOT

Announcements and General Business

The PMT discussed the June PMT meeting summary briefly. Curt sent the group an edited summary with significant clarifications regarding the modeling efforts.

Bruce also noted that the minutes reflect a correction to a meeting discussion item. The level 1 flow control is based on the King County manual. The level 2 flow control is based on the Ecology manual (not the King County manual as was stated at the meeting).

Several PMT members appreciated the effort put into clarifying the modeling assumptions. They emphasized that similar documentation should also be occurring with other work products.

PMT members need more time to review the summary and the already proposed edits. They will send any comments to Julie by July 11th.

Updates

ILA Amendment from the Port

The Port's signed ILA amendment was delivered at the meeting. King County now has signed ILA amendments from all project partners. King County staff will process the

Action items are highlighted

amendment and will now be able to bill for 2003 work. Project partners who were billed at the end of 2002, will receive a bill for the first six months of 2003. Partners who were not billed for 2002 work yet will receive a bill that includes their respective share of 2002 costs and for the first six months of 2003 costs.

Executive Committee Meetings

Executive Committee representation was discussed. With Cal Hoggard's departure from the King County Executive's office, Curt and/or Bruce will need to find out who the new representative will be for King County. Mehrdad asked whether WSDOT has had a representative participating. Mehrdad will talk to Craig Stone (the Project Director for 509/518) about his interest and availability to participate on the Executive Committee representing WSDOT.

The timing and scope of future Executive Committee Meetings were discussed. It was decided that three meetings seem appropriate:

Reminder – August 3 Executive Committee Meeting is cancelled

Mid September, to provide a project status report

Mid/late October, to review and discuss the Draft report

Mid December (week of the 15th), to review the Final Draft

ACC Response to Meeting Invitation and Data Request

Prior the meeting, Bruce had not received any response from the ACC concerning either the availability of water quality data or the invitation to meet with PMT members. During the PMT meeting, Steve Clark indicated that he had been informed by his city manager that the ACC met in executive session the night before and had decided that the ACC consultants would not be accepting the PMT's invitation. There was some additional discussion, however, from Steve Bennett and Kimberly Lockard indicating that this may not be the final resolution of the issue.

The PMT members reiterated their concern that if the ACC is going to provide the requested water quality data, that they need to do so quickly. Urgency is an issue in order to incorporate any data into the planning process in a timely manner.

Public Outreach via Media

The PMT discussed the issue of whether the media should be included as part of the basin plan public outreach effort. The recollection of the PMT, as informed by the Executive Committee meeting, was that the Web page would be the primary outreach method.

Burien has some upcoming community meetings related to a broad range of community services and programs, and about their Stormwater Master Plan. These will be advertised via press releases. These might be avenues to provide information to the public about the Miller, Walker, and Salmon basin planning process.

The PMT members agreed that a coordinated media outreach might be appropriate once information is available for people to respond to, or as a way to publicize the public meetings.

Action items are highlighted

Julia Patterson's upcoming newsletter will include information about the project.

Each project partner has been asked to look at their own Web sites for opportunities to link to the project Web site (<http://dnr.metrokc.gov/wlr/watersheds/puget/miller-salmon/>), and to increase awareness about the project. These extra linkages increase the ranking that the project Web site is likely to receive from search engines. The City of Burien already has links to the project site from the City home page and from the Public Works home page.

Public Meetings

The PMT discussed various options for public meetings – formal presentations vs. more informal open houses. The group agreed that the initial basin-specific presentations should be more formal presentations, while the later meetings might be amenable to an open house format.

Some target dates and locations were identified for the first basin-specific meetings/presentations. The scopes of the meetings are to provide an overview of the problems and recommended solutions.

September 25 Salmon Basin (at Shorewood Elementary)

October 2 Miller and Walker Basins (at the Criminal Justice Training Center)

The time for each is 6:30 – 8:00 with the formal presentation portion starting at 7:00. Display boards would be up for people to look at prior to the presentation.

Steve Clark is checking into whether these facilities are available on these dates, and holding them if they are.

Bruce will do a cost estimate to have King County technical staff (Mason Bowles, John Bethel, and Kate Rhoads for all presentations; and Kelly Whiting for Miller/Walker only) prepare for and be present at the meetings.

Each jurisdiction will publicize the public meetings individually and, as noted above, some joint media contact may be appropriate as well as more efficient.

Technical Team Preliminary Findings and Current Work

Bruce reviewed the Tech Team's "To Do" list with the PMT, and asked whether they had concerns with any items, and whether there were other items that should be present that were not.

Curt commented that Scene 03 would be run only if deemed appropriate based on a sensitivity analysis (commercial/non-commercial ratio).

Scene 04 meets the Ecology Manual requirements. The PMT members should think about and digest what Scene 04 is, and be prepared to discuss their thoughts on this approach at the next PMT meeting. (This document is attached below if you need it again)

Bruce presented the ecologist's provisional estimates of fish productivity for Salmon, Miller, and Walker Creeks. We are waiting for actual fish productivity data collected by Washington Trout between March 1 and July 15, 2003.

Action items are highlighted



Bob Duffner reiterated the limitations placed on the Port by the FAA regarding habitat enhancement, because of life safety hazards caused by bird attraction in flight areas. The PMT members were interested in the specifics of the FAA limitations. **Bob will provide the FAA protocol to the group.** Note- these limitations exist currently in the basin. They are not new requirements related to the third runway construction.

Next Meetings

July 31, 2003 PMT Meeting 9AM – Noon **(THIS IS AN ADDITIONAL MEETING)**
City of Burien City Manager's Conference Room – **Steve Clark to confirm availability of the City Manager's Conference Room.**

August 21, 2003 PMT Meeting 9AM – Noon
City of Burien City Manager's Conference Room

Related Attachments

Tech Team "TO DO" list with modeling run descriptions	 todolist.doc
Provisional estimates of fish productivity for Salmon, Miller, and Walker Creeks	 "Prov Fish Productivity.doc"

Action items are highlighted

Miller, Walker and Salmon Tech Team “To Do” List

Who	What
Kelly/Jeff	<ul style="list-style-type: none"> • Provide Lake Hicks area land cover data and developable parcels to Kate • Look at Lake Hicks water levels under future scenarios of no flow control, Level 1, and Level 2 • Do Miller Creek Scene 3 just as in Walker – no future flow control except for Port development • Examine low flows at inlet to Miller Creek Regional Facility • Look at elevation fluctuations at Ambaum Pond – is there capacity available to utilize for dead storage? • Duration and base flow analyses for Salmon, Miller, Walker under current and future level 1 and level 2 flows • Other modeling (see below)
Doug	<ul style="list-style-type: none"> • Do hydraulic analysis on bypass line and conveyance system leading to bypass line using existing pumping rates from Lake Hicks • Work with Ingrid to evaluate change of orifice size of White Center Neighborhood Pond. If ok, Ingrid will generate new f tables for Kelly. • Is there dead storage available at Hermes for wq treatment? What design and operational changes would be needed?
Kate/Sally	<ul style="list-style-type: none"> • Spreadsheet WQ Model for Lake Hicks • Coordinate with Doug to assess wq treatment potential at Hermes

Modeling runs

*Scene 01: *Build-out with Level 1 flow control applied to new impervious surface.* This is the current standard applied per the King County SWDM. The time series components for this run include:

1. "Red parcels" future condition series attenuated with Level 1 flow control, plus
2. "Non-red parcels" current condition series.

**Scene 02: *Build-out with "forested" Level 2 flow control applied to new and replaced impervious surface on those parcels most likely to develop or redevelop in the foreseeable future.* This is the current Ecology standard applied to parcels in which assessed land value is currently higher than the assessed value of onsite improvements. The time series components for this run include:

1. "Red parcels" future condition series attenuated with forested Level 2 flow control, plus
2. "Non-red parcels" current condition series.

Scene 03: Build-out with "forested" Level 2 flow control applied to new and replaced impervious surface on all parcels where a flow control facility requirement could be triggered by new development or redevelopment. The difference between this and Scene 02 is that it would add the application of "forested" Level 2 flow control to those existing commercial developments in which assessed land value is currently lower than the assessed value of onsite improvements.

The time series components for this run include:

1. "Red parcels" future condition series attenuated with forested Level 2 flow control, plus
2. "Non-red **commercial** parcels" current condition series attenuated with forested Level 2 flow control, plus
3. "Non-red **non-commercial** parcels" current condition series.

(Note: this run for the Miller Creek Basin only).

Scene 04: Build-out with "forested" Level 2 flow control applied to new and replaced impervious surface on all parcels where a flow control facility requirement could be triggered by new development or redevelopment, plus Low Impact Development (LID) BMPs ultimately applied to 10% of the developed area. This is basically the Scene 03 run modified to assume a 5% reduction in the total future condition EIA (Effective Impervious Area) for each subbasin to reflect the "maximum extent practicable" application of LID BMPs to all developed areas over time. The 5% reduction assumes that LID BMPs will be applied only to EIA covering about 10% of the total developed area. This 10% application area assumption reflects the expected limitations of applying LID BMPs to high density urban development and is consistent with the proposed BMP requirements for such development in the SWDM update. The 10% application area translates to a 5% reduction in total EIA by way of a 50% credit applied to the area served by LID BMPs as proposed in the SWDM update (i.e., the 10% application area would be modeled as 50% impervious and 50% grass). The time series components for this run include:

1. "Red parcels" modified future condition series (computed with EIA reduced by 5%) attenuated with forested Level 2 flow control, plus
2. "Non-red **commercial** parcels" modified current condition series (computed with EIA reduced by 5%) attenuated with forested Level 2 flow control, plus
3. "Non-red **non-commercial** parcels" modified current condition series (computed with EIA reduced by 5%).

(Note: this run for the Miller and Walker Creek basins only).

*Scene 01 was computed by first separating the "red parcels" portion of each subbasin from the "non-red parcels" portion (*note: "red parcels" are those in which the current assessed value of the land is greater than the value of the onsite improvements*). Next, for the "red parcels" portion of each subbasin, a "detention outflow time series" was created by routing the "future-condition time series" through a hypothetical Level 1 detention facility sized to match future-condition 2- and 10-year peak flows to current-condition 2- and 10-year peak flows. Finally, the "detention outflow time series" for the "red parcels" portion of the subbasin was added to the "current-condition" time series for the "non-red parcels" portion to arrive at the final Scene 01 curve. This is equivalent to the level 1 flow control required by the King County Surface Water Design Manual.

**Scene 02 was computed the same way, except that the "detention outflow time series" for the "red parcels" portion of the subbasin was created by routing the "future-condition time series" through a hypothetical Level 2 detention facility sized to match "future-condition durations" to "forested-condition durations". This is equivalent to the level 2 flow and duration control required by the Department of Ecology Stormwater Manual.

Provisional Estimates of Fish Productivity for Salmon, Miller, and Walker Creeks

Salmon Basin

As a result of migratory blockages within the first 800 feet of the stream, there is no anadromous production in Salmon Creek. There is over 2,860 lineal feet of habitat that could be using for salmon spawning and rearing under fully restored habitat conditions. Provisional estimates of lost fish production suggest that as many as 250 fish per year are being lost as a result of the migratory blockage and degraded habitat conditions. Lost fish productivity were calculated by species as follows:

Chum

Assuming a run size of 1.25 adults per 10.8 square feet (ie: 1 square meter) of spawnable habitat, an average channel width of 6 feet, and a conservative estimate of 285 feet of available spawning habitat (25% spawning habitat of 1141 total feet)

$$\begin{aligned} &1710 \text{ square feet (available spawning habitat)} \times 1.25 \text{ adults/10.8 square feet} \\ &(\text{survival}) \\ &= 198 \text{ adults/year.} \end{aligned}$$

Coho

Based on assumptions of 0.5 smolts produced per 10.8 square feet (ie: 1 square meter) of rearing habitat, an average channel width of 6 feet and 1699 feet of available habitat-

$$\begin{aligned} &10,194 \text{ square feet (available rearing habitat)} \times 0.5 \text{ smolts/10.8 square feet} \\ &(\text{production}) = 472 \text{ smolts/year. Assume 10\% survival} \\ &= 47.2 \end{aligned}$$

Cutthroat Trout

Cutthroat trout production is typically 0.25 to 0.5 times that of Coho salmon for similar stream reaches. In Salmon Creek, there are approximately 1.7 times as many linear feet of cutthroat habitat as there is coho habitat.

$$\begin{aligned} &47.2 \text{ adults/year Coho} \times 0.25 \text{ (gross productivity)} \times 1.7 \text{ (larger habitat area)} \\ &= 20 \text{ adults/year} \end{aligned}$$

Miller Basin

Miller Basin includes a variety of seasonal and permanent fish passage barriers as well as degraded habitat conditions. These include a degraded estuary due to recreational development, pre-spawn mortality that has been linked to water quality problems, seasonal, species-specific, and permanent fish passage barriers, degraded in-stream habitat due to siltation and elimination of large woody debris recruitment. Provisional estimates of lost fish production suggest that as many as 7031 fish per year are being lost as a result of the passage barriers and degraded habitat conditions. Lost fish productivity were calculated by species as follows:

Chum

Assuming a run size of 1.25 adults per 10.8 square feet (ie: 1 square meter) of spawnable habitat, an average channel width of 6 feet, and a conservative estimate of 285 feet of available spawning habitat (25% spawning habitat of 1141 total feet)

$$\begin{aligned} & 9504 \text{ square feet (available spawning habitat)} \times 1.25 \text{ adults/10.8 square feet} \\ & \text{(survival)} \\ & = 1100 \text{ adults/year} \end{aligned}$$

Coho

Based on assumptions of 0.5 smolts produced per 10.8 square feet (ie: 1 square meter) of rearing habitat, an average channel width of 6 feet and 28,720 feet of available habitat-

$$\begin{aligned} & 28,720 \text{ square feet (available rearing habitat)} \times 0.5 \text{ smolts/10.8 square feet} \\ & \text{(production)} = 7,977 \text{ smolts/year. Assume 10\% survival} \\ & = 798 \end{aligned}$$

Cutthroat Trout

Cutthroat trout production is typically 0.25 to 0.5 times that of Coho salmon for similar stream reaches. In Miller Creek, there is the potential for 7 miles of habitat area.

$$\begin{aligned} & 221,760 \text{ square feet (available spawning habitat)} \times 0.25 \text{ adults/10.8 square feet} \\ & \text{(survival)} \\ & = 5133 \text{ adults/year} \end{aligned}$$

Walker Basin

Walker Basin is perhaps the most intact basin in this analysis. There are no known fish passage barriers although in-stream habitat is limited by the encroachment of urban development. Provisional estimates of lost fish production suggest that as many as 5426 fish per year are being lost as a result of the passage barriers and degraded habitat conditions. Lost fish productivity were calculated by species as follows:

Chum

Assuming a run size of 1.25 adults per 10.8 square feet (ie: 1 square meter) of spawnable habitat, an average channel width of 6 feet, and a conservative estimate of 285 feet of available spawning habitat (25% spawning habitat of 5280 total feet)

$$\begin{aligned} & 31680 \text{ square feet (available spawning habitat)} \times 1.25 \text{ adults/10.8 square feet (feet} \\ & \text{(gross productivity)} \\ & = 3,666 \text{ adults/year} \end{aligned}$$

Coho

Based on assumptions of 0.5 smolts produced per 10.8 square feet (ie: 1 square meter) of rearing habitat, an average channel width of 6 feet and 10,560 lineal feet of available habitat-

$$\begin{aligned} & 63360 \text{ square feet (available rearing habitat)} \times 0.5 \text{ smolts/10.8 square feet (feet} \\ & \text{(gross productivity)} = 2,933 \text{ smolts/year. Assume 10\% survival} \\ & = 293 \text{ adults/year} \end{aligned}$$

Cutthroat Trout

Cutthroat trout production is typically 0.25 to 0.5 times that of Coho salmon for similar stream reaches. 63360 square feet (available spawning habitat) x 0.25 adults/10.8 square feet (survival)

$$= 1466 \text{ adults/year}$$